*Review Article*

# Theorizing Innovation and Change in Ghanaian Colleges of Education: A Synthesis of Models for Leadership and Policy

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## About Article

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## ABSTRACT

This theoretical review examines innovation and change management in Ghanaian Colleges of Education. The key frameworks used to inform this exploration were Rogers' Diffusion of Innovation, Lewin's Change Management Model, Kotter's Eight-Step Model, Institutional Theory, and Resource-Based View. The study has reviewed the contemporaneous literature published between 2020-2023, incorporating global perspectives and the Ghanaian context, which have provided barriers, success stories, and lessons for leadership, policy and management of institutions. The study determined that effective innovation takes visionary leadership, strategic resource allocation, participative decision-making, and being sensitive to policy expectations and real-world contexts. The review identified a number of gaps, including limited, empirical research explicitly connecting theory to practice in Ghanaian Colleges of Education, as well as calling for context-specific change management frameworks. The review discusses implications for leadership, policy and management, including the call to innovate reforms and the need to conduct further empirical research, including longitudinal and comparative studies. This study offers a theoretical foundation that synthesizes global and Ghanaian perspectives into practical insights and a framework tailored for policy, leadership, and management in teacher education, that enables new initiatives and empirical research into sustainable innovation and change in Ghanaian teacher education institutions.

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## 1. INTRODUCTION

Globally, universities are focused on themes of innovation and change management as they shift to respond to changing societal needs, new technologies, and pressure for higher quality of teaching and learning (Ezzeddine, 2023; Boateng, 2023). The speed of change in education systems globally means the burden for many universities is how they will build the capacity to innovate while stabilizing and staying relevant. Colleges of Education, as the first stepping off point for teacher preparation, are being looked at fairly closely due to the pressures of these changes on them influencing the teacher qualifications and competencies of teachers at basic schools (Adu-Gyamfi & Otami, 2022).

In Ghana, teacher education has been radically reformed during the past decade. The transformation of Colleges of Education into degree awarding institutions in 2012 was a pivotal moment that positioned the colleges as significant national contributors to national development through the professionalization of teacher education (Agyemang & Nsiah, 2023). The reforms were meant to promote academic integrity, improve teaching competencies and contextualize teacher preparation education with global educational standards. There have been significant improvements, but with improvements come challenges - inadequate facilities, non-funding and infrastructural bottle-necks which have complicated the implementation of pedagogical innovations (Owusu-Mensah & Addai, 2023).

To tackle these issues, others have enabled leadership development, redesign of curriculum, and improved pedagogy using programming like the Transforming Teacher Education and Learning (T-TEL) programme in Colleges of Education (Donkor *et al.*, 2022). While the aforementioned initiatives have produced positive developments, there is no guarantee that they will be sustainable or institutionalized. Many colleges of education face barriers to change, resource issues and misalignments between policy opportunities and local capacity that impacts the potential for developing innovations (Agyemang & Nsiah, 2023).

Despite the reform measures, innovation and change agency in Ghana's Colleges of Education have been fragmented with a limited theoretical basis. Research has established that while the educational reforms have led to changes such as updated curriculum reforms, digital learning platforms, and professional development packages some of the innovations have stagnated and some, were not aligned with the institutions (Owusu-Mensah & Addai, 2023; Donkor *et al.*, 2022). Although there have been some improvements, the Colleges still struggled with operating conditions to integrate the innovations into their existing structure. These concerns raised fundamental questions about how the models of leadership and governance frameworks contributed to the adoption and institutionalization of reforms. While higher education reforms in Ghana have advanced in recent years, there remains limited empirical research that connects established theories of change and innovation directly to the lived realities of Colleges of Education. Most existing studies concentrate on policy reforms, curriculum updates, or isolated innovations, but they rarely apply frameworks such as Rogers' Diffusion of Innovation, Lewin and Kotter's change models, Institutional Theory, or the Resource-Based View to teacher education. This gap highlights the need for context-sensitive research that tests and adapts these theories within Ghana's unique institutional, cultural, and resource conditions. Addressing this gap requires developing change management frameworks that integrate global best practices while responding to local complexities such as institutional capacity, stakeholder dynamics, and resource constraints. Such frameworks would equip leaders and policymakers with practical tools for navigating reform processes, continuously reassessing implementation, and enhancing the sustainability of innovations in Ghanaian teacher education.

### 1.1. Problem statement

Colleges of Education in Ghana are vital institutions responsible for teacher education for the country's basic education system, but they are experiencing significant challenges adapting to innovation and organizational change. A number of reforms that took place recently heralded Colleges of Education in Ghana as degree-awarding institutions, yet multiple colleges are still struggling with inadequate infrastructure, limited technological adoption, few staff development opportunities, and lack of resources (Ampofo, 2023; Boakye & Mensah, 2022). As a result, Colleges of Education have a hard time updating their pedagogy, while advancing digital and innovative practices, and advancing a culture of performance improvement.

The T-TEL program, among other initiatives, has enabled an array of changes, but the evidence indicates that uptake of new practices is sporadic and un-sustained across colleges (Amoako & Osei, 2023). A fragmented change management process, resistance to changing by staff, slow institutional adaptation and variation of reform effect are associated with this. The significant body of studies conducted in Ghana also tended to focus on the policies being implemented and institutional capacity building, but less attention was placed on the theory and conceptual basis of how change is managed and sustained in education organizations (Yeboah, 2022).

This gap is important because successful innovation and change management involve not only structural changes but also theories that can inform and substantiate institutional adaptation. Without defining theories, innovation and change management attempts can exist in a fragmented and temporary state. Therefore, to achieve institutional change and innovation in Ghana's Colleges of Education, a theoretical examination of innovation and change management is required to provide conceptual clarity, a pathway to identify potential models, and ultimately, to support sustainable institutional development.

### 1.2. Objectives of the study

The main objective of this study is to conduct a theoretical review of innovation and change management in Colleges of Education in Ghana, with the aim of identifying relevant frameworks that can inform sustainable institutional transformation. Specifically, the study seeks to:

i. Examine the theoretical foundations of innovation and change management as applied to educational institutions.

ii. Analyze how these theories can be contextualized to address the challenges facing Colleges of Education in Ghana.

iii. Identify gaps in the existing literature and propose

directions for future research on organizational change in Ghanaian higher education.

iv. Provide theoretical insights to guide policymakers, administrators, and educators in implementing effective and sustainable reforms.

## 2. LITERATURE REVIEW

### 2.1. Defining innovation in higher education

Innovation in higher education is conventionally defined as the intentional introduction and use of new ideas, practices or technologies with a goal of improving teaching, learning, research and management of institutions. Innovations differ from the more normal organizational change, Variations of change include processes or way of doing something, in other words making something transformative can change structures and can change space and also create more ways to accomplish institutional goals (Agyemang & Opoku 2023). Innovation, in this way, should be more than simply adopting tools, policy or practices; there needs to be a culture of structure that embraces creativity, collaboration and flexibility.

At the global level, there have been calls from international organizations, like UNESCO (2022) and OECD (2021) for higher education reform as a strategic response to private knowledge-based economies, digital transformation, and with an ever-increasing demand for equitable and inclusive education. Internationally, institutions and governments are called to embrace innovation, both as a strategy to increase competitiveness, as well as a means to increase, accessibility, equity and applicability in education contexts. This idea suggests that innovation is more complex and potential for higher education to address global demands whilst recognizing local realities.

In Ghanaian higher education, innovation typically stems from redesigning curricula, increased involvement of digital technologies, new instructional techniques, and enhanced governance systems, (Mensah, 2022). In Colleges of Education, innovation is linked to national initiatives targeting, competencies-based teacher education, digital literacy teaching, and inclusive teaching and learning approaches focused on the changing landscape of basic education (Asare & Osei, 2021).

Recent research emphasizes that innovation is not only about technology-related advances, but includes; new ways of leading an organization, participatory decision-making processes, and student-centered learning spaces which consider equity and relevance into education (Boateng & Baffoe, 2022). Therefore, innovation in higher education can be considered a multi-dimensional, interconnected, and cyclical process that considers new technology, pedagogy, governance and institutional culture, which would have implications for both academic effectiveness and social impact.

Transition, as there are new practices brought about by innovation which, by definition, disrupt established ways of doing things, innovation's potential will also depend on how effectively institutions manage change. This naturally leads to the broader audience of change management in higher education, which will provide the elements and structures that institutions take with them on their transformation journey.

### 2.2. Defining change management in higher education

Change management is the systematic process employed by organizations to help individuals, groups, and organizations manage their transition from a current state to a desired future state (Hayes, 2022). Change management is broader than just administrative restructuring, as it also includes changes in teaching and learning practices, adopting new technologies, leadership changes, and changes in institutional culture (Cameron & Green, 2020). In higher education, change management is vital because higher education systems are complicated and loosely coupled, making learning loop processes complex due to multiple actors (e.g., faculty, students, administrators, researchers, policymakers) interacting in a dynamic way (Kezar & Holcombe, 2021).

In higher education settings, change management is influenced by various internal and external forces, and these forces influence organizational responses. External "forces" may include government reforms, globalization, digital transformation, and demands from labor markets (Kotter, 2021; Ahmed & Abubakar, 2023). Internal "drivers" include organizational needs for change surrounding curriculum review, accreditation, faculty development, etc. Effective change management within colleges and universities must therefore reflect strategies to balance the line or organizational structure with organizational culture (Fullan, 2021).

Researchers are suggesting that change in education is not simply about making new policies, but fostering buy-in from stakeholders, and ownership at the institutional level (Kezar, 2022). For example, new innovations like digitally planned learning, or competency-based curriculum may get some resistance, if there is not preparation for staff and students. This highlights the importance of participatory processes for change, where leaders actively engaged staff in planning, decision making, and execution (Bolden et al., 2023).

In Ghanaian Colleges of Education, change management is a significant focus at the moment due to continuous reforms such as the reformation of teacher education curriculum, incorporation of ICT in pedagogy, and the shifts of national education policies. These reforms will require the establishment of not just structural changes, but a cultural change, where innovation, flexibility, and accountability can exist (Osei & Boateng, 2022). As a result, change management in colleges of education has to be perceived as the continuous navigation of the institution through ambiguity and instability, whilst constructing stability in the institution, and allow for continual adaptation.

To sum up, change management in higher education can be seen as both a process and a competency. Change management is used to plan and implement strategies for fulfilling institutional practices in response to changing needs. Change management also recognizes the human aspect of change and is about the process of changing through communication, learning, and participative leadership (Kotter, 2021; Hayes, 2022). These perspectives position change management as a key theoretical perspective for researching how Colleges of Education in Ghana deal with change in the context of innovations and reform.

## 2.3. Innovation and change management in the context of colleges of education in ghana

Innovation and change management provide a unique intersection within Ghana's Colleges of Education, which are key players in the preparation of teachers and the catalysts for educational reform. The transition of these colleges to tertiary status in 2012 brought a change in identity; they were radicalized, compelled to implement new curricula, improve faculty qualifications, and integrate technology into both learning and administration (Abudetse *et al.*, 2021). Innovation in this environment isn't simply about implementing new practices, but in part aligning those practices with specific national education priorities. For example, the Education Strategic Plan 2018–2030 is focused on quality, access, and the use of digital tools to enhance learning for all learners in Ghana (Ministry of Education, 2019).

Nonetheless, embedded innovation in Ghanaian Colleges of Education is often problematic primarily for the following reasons: resource constraints, infrastructure, and failure to embrace an organizational shift. For example, although some of the colleges have implemented virtual learning environments and digital library systems, adoption has not been universal. Colleges struggle to implement because they simply do not have the resources or capacity to make such connections, while other colleges have simply adopted these resources virtually with no engagement or capacity (Boateng & Owusu, 2022). Thus, change management is essential because institutional leaders are caught between two competing perspectives, top-down policy directives and bottom-up issues regarding faculty and student capacity to implement such initiatives. This interaction of tension creates issues for both the timing and sustainability of reforms (Amoako & Frempong, 2023).

Furthermore, the effectiveness of innovation in these colleges is largely contingent on their leadership styles, motivation of staff, and cooperation with stakeholders; it has been demonstrated that transformational leadership styles and participatory decision-making serve as mechanisms to ensure less resistance to change, particularly in situations where innovations questioned established teaching and administrative practices (Asare & Osei, 2022). On the other hand, poorly articulated or communicated changes where leaders rely mostly on authoritarian principles usually lead to enhanced resistance to change and diminished buy-in. Therefore, we can conclude that the nexus between innovation and change management inside Ghana's Colleges of Education reflects the potential for reform, while simultaneously highlighting the infrastructural conditions for organizational change.

Ultimately, we can aver that innovation and change management cannot be separated because innovation has the potential to generate the need for change, and change management measures how successfully innovations can be institutionalized. This exploration provides a basis for assessing how Colleges of Education in Ghana can bolster their involvement in advancing teacher education and responding to national development objectives.

## 2.4. Theoretical Foundations of Innovation and Change Management

### 2.4.1. Rogers' diffusion of innovation theory

Rogers' Diffusion of Innovation Theory (2003) describes the process of which new ideas, practices, and technologies spread and become adopted within a social system over time. It describes the way that people adopt new ideas and categorizes them into five groups: innovators, early adopters, early majority, late majority, and laggards. Each type of adopter has specific characteristics that affect the adoption of innovation, the speed at which innovation is adopted and the overall success of the adoption. Rogers' describes four elements involved in the diffusion of innovation which are: the innovation, communication channels, time and the social system in which the innovation is being diffused.

In higher education, especially at Colleges of Education in Ghana, the theory is useful to help us understand the capacity or speed that reforms; such as a change from a three-year Bachelor of Education (B.Ed.) programme to a four-year Bachelor of Education (B.Ed.) programme, or the use of digital teaching tools, are adopted. Some lecturers and administrators will adopt technology enabled teaching far quicker than others who are limited by training or resources (T-TEL, 2021).

A great strength of Rogers' framework is its ability to show the conditions that facilitate or delay adoption including constructs like perceived usefulness, institutional support, and peer pressures (Greenhalgh *et al.*, 2020). However, others think the model implicitly favors individual choice and less clearly points to structural barriers such as inadequate infrastructure or entrenched institutional policies (Zhu *et al.*, 2021). Regardless of these criticisms, the theory is still relevant for viewing innovation in Ghanaian higher education because it raised awareness of the people and social aspects of how reforms are realized.

### 2.4.2. Lewin's change management model

Lewin's three-stage model of change - unfreezing, changing and refreezing - is still one of the most common approaches to explain how institutions can undergo transformational change. In terms of higher education practice, the unfreezing stage consists of creating an awareness of reform, usually by exposing discrepancies between what current practices are and what practices are intended to be (Burnes, 2021). The changing stage is viewed as the transitional stage in which new strategies, policies, or structures are made. The refreezing stage focuses on making new practices work and ensuring new practices embed within the institution's practices, norms, or dominant cultures (Burnes, 2021).

For Ghana's Colleges of Education, the model is salient as institutions are managing curriculum reforms, digital migration, and professional development re-structuring. Moving from diploma status to Bachelor of Education (B. Ed.) required delegating long-standing teaching practices, delivering competency-based training in the changing phase, and embedding the reform efforts through a collaborative approach outlined by continual professional development policies (Ministry of Education [MoE], 2021; T-TEL, 2022). Further, recently, the National Teaching Council (NTC) provided Teachers in training with licensing examinations. The

NTC's initiatives also serve as a current use of Lewin's three stages to encourage acceptance and sustainability of reform (NTC, 2023).

Lewin's model is simple and easy to adapt for organized reforms, which is a strength. Critics have charged that it is predicated on a linear, rather than iterative, notion of change. They have also pointed out that while Lewin's model provides a useful starting point for discernible transitional process for Colleges of Education in Ghana to further develop and institutionalize reform, it falls short of fully representing the complex, iterative, systematic nature of higher education reforms in developing contexts (Cummings *et al.*, 2022).

### 2.4.3. Institutional theory

Institutional theory offers a valid approach for understanding how organizations, including higher education institutions, adopt practices, norms, and innovations through external and internal pressures. The approach demonstrates that organizations experience pressures to conform that are far beyond the efficient and technical context (Meyer & Rowan, 2020). Organizations seek to obtain legitimacy in their environment. The commitment to legitimacy implies organizations will adopt policies and reforms because they are seen as appropriate and acceptable and not just because they are effective.

The concepts of isomorphism (coercive, mimetic, and normative) developed by DiMaggio and Powell are a foundational aspect of institutional theory and its application in education. Coercive isomorphism occurs from the necessity of complying with the reforms by some government policies, accreditation agencies or changes introduced by donors; mimetic isomorphism occurs where organizations involve themselves in similar practices to institutions they associate with or perceive as successful; normative isomorphism derives from professional standards and/or training (Scott, 2021). Colleges of Education in Ghana are influenced by coercive pressures from the Ministry of Education (MoE) and Ghana Tertiary Education Commission (GTEC); normative pressures from professional associations e.g. National Teaching Council (NTC); and mimetic pressures to adopt best organizational practices from institutions perceived as best endowed.

Institutional theory is very important in understanding innovation and change management practices in Ghanaian Colleges of Education. For instance, the recent institutionalization of Colleges of Education as tertiary institutions is predominantly an example of coercive pressure on accountability mechanisms, while the ongoing adoption of ICT and competency-based curricula reflect normative and mimetic, respectively (T-TEL, 2022; Ministry of Education, 2023). Institutions will explain why some innovations will be adopted ceremonially, to build legitimacy, rather than purposefully, to improve practice which will ultimately be problematic in the future.

Institutional theory has a limitation of over-emphasizing processes and rules that typically disengage agencies and

leaders from converting logic and framework into innovations. For instance, while institutional theory articulates why institutions will comply with rules, it mentions less about how internal actors, principals, heads of department and/or academic staff invoke their agency to shape and adapt these reforms in ways that reflect the local conditions (Greenwood *et al.*, 2020). Nevertheless, there are numerous advantages that the theory offers to render the context of Colleges of Education in Ghana to explore external and internal influences on innovation and change management.

### 2.4.4. Resource-based view (RBV)

The Resource-Based View (RBV) underscores the importance of internal resources and capabilities within an organization as the point of innovation and competitive advantage. It emphasizes the presence of valuable, unique, rare, inimitable, and non-substitutable (VRIN) resources as key determinants of organizational performance, as opposed to institutional theory, which is focused on external coercive dynamics or pressures (Barney, 2020). In the higher education realm, this means that institutions can impact new change and development positively if they focus internally around their perceived strengths rather than always externally, responding to pressure.

In the case of Colleges of Education in Ghana, RBV posits the importance of human capital development, leadership capacity, research capacity, plant and ICT infrastructure, etc. as well as a prescriptive frame for considering how these resources allow for meaningful innovation and transformative change. For instance, the introduction of the Bachelor of Education programme, relying on policy reform has significant roadblocks, and includes mobilizing human resources, information communication and technology (ICT) facilities (T-TEL, 2022; Ministry of Education, 2023) and capacity building and onboarding development or professional development events for tutors. Institutions or Colleges with the greatest internal capacity had the best chance of successful changes, given MOE and T-TEL capacity shortfalls.

First of all, RBV considers the strategic use of intangible resources like organizational culture, networks, and institutional reputation. For example, a college with a culture of innovation for change that allows for experimentation and collaborative learning, will be far more likely to hold on to pedagogical innovations than a college with more rigid traditions and practices. This shows that College leaders can encourage College innovations by investing in capacity-building that creates a culture of innovation and establishes networks to increase institutional resources.

One limitation of RBV is that it underestimates (too low a level of importance) the power of external influences, especially in a highly politically regulated space such as education in Ghana. Nevertheless, this allows for a nuanced understanding of the influence of resources inside institutions and the influences on those organizations from without when used with an institutional lens to understand how the influences of different resources can either constrain or foster innovation and change.

**Table 1.** Summary of theoretical foundations of innovation and change management

| Theory | Focus | Strengths | Weaknesses | Relevance to Colleges of Education in Ghana |
|---|---|---|---|---|
| Rogers' Diffusion of Innovation Theory | Explains how innovations spread among individuals and institutions over time. | Highlights adoption stages and categories of adopters (innovators, early adopters, majority, laggards). | Underplays institutional constraints; assumes rational adoption. | Useful for understanding how new policies (e.g., B.Ed. reforms, ICT adoption) spread among faculty and institutions. |
| Lewin's Change Management Model | Three-step process: Unfreeze → Change → Refreeze. | Simple, practical, and adaptable to organizational change. | Too linear for complex, ongoing reforms; lacks attention to external pressures. | Helps in managing transition phases in reforms like curriculum change and digital integration. |
| Kotter's 8-Step Change Model | Detailed roadmap for leading change through leadership, communication, and culture. | Emphasizes leadership, vision, and stakeholder engagement. | Prescriptive and time-intensive; assumes stable conditions. | Relevant for guiding large-scale institutional reforms, such as governance restructuring and teacher development. |
| Institutional Theory | Organizations respond to external pressures (coercive, mimetic, normative). | Explains conformity to regulations, accreditation, and global standards. | May downplay innovation driven by internal resources. | Explains how Colleges align with MoE, NTC, and T-TEL reforms under policy and donor influence. |
| Resource-Based View (RBV) | Focuses on internal resources and capabilities as drivers of innovation and advantage. | Highlights unique assets (human, technological, cultural) for sustaining change. | Underestimates external regulatory pressures. | Useful for emphasizing investment in faculty development, ICT, and culture of innovation to sustain reforms. |

### 2.4.5. Synthesis of the theories

The five theories accentuate a multi-dimensional perspective of innovation and change management in Ghanaian Colleges of Education. Rogers' Diffusion of Innovation describes how reforms and new practices diffuse across stakeholder groups with definitions of categories of adoption and the attributes that influence innovation (Greenhalgh *et al.*, 2020; T-TEL, 2021). Lewin's Three-Step Model and Kotter's Eight-Step Model provide structured approaches to navigate transitions, featuring phases of preparing for the change, taking action, and then consolidating the change (Burnes, 2021; Kotter, 2021). Institutional Theory shows the broad influences of external pressures of the Ministry of Education, the National Teaching Council and development partners for institutional conformity (Scott, 2021; Ministry of Education, 2023). The Resource-Based View presents the internal resources and capabilities - including faculty expertise, ICT infrastructure and organizational culture - which contribute to the ability to sustain reforms (Barney, 2020; T-TEL, 2022). Thus, the five theories collectively link the external requirements to satisfy policy demands and the internal building and sustaining capacity, and afford access to views of innovation and change in Ghanaian Colleges of Education that incorporate and balance both external and internal factors.

### 2.5. Global perspectives on innovation and change management in higher education

Innovation and change management have become a central part of higher education's global evolution as institutions work to satisfy the concurrent pressures of a rapidly-moving knowledge economy, digital transformation, and quality assurance requirements (Aithal & Kumar, 2020; Altbach *et al.*, 2021). Universities and colleges globally, have adopted innovation both in what and how they teach and learn, but also in their administrative structures, governance models, and research approaches. For example, higher education institutions in North America and Europe have adopted more digital learning technologies, competency-based curricula, and participatory teaching and learning to provide improved staff and faculty engagement and institutional effectiveness (Salmon *et al.*, 2021; García-Peñalvo *et al.*, 2022).

Change management frameworks such as Kotter's 8 step model and Lewin's Three-Step Model, are becoming common frameworks established on which to anchor innovation adoption processes, as to ensure that new institutional reforms are planned, communicated, and sustained (Appelbaum *et al.*, 2022; Burnes, 2021). The institutions that take their resources into account when responding to external demand relative to the approach they take (prepared using resource-based views), tend to experience higher levels of success in the implementation of innovations (Barney, 2020; Teixeira *et al.*, 2021).

Literature has also acknowledged the difficulties higher education institutions experience in terms of managing change and related challenges such as academic resistance, financial resources, infrastructure, and compliance (Greenhalgh *et al.*,

2020; García-Peñalvo *et al.*, 2022). Institutions that successfully embed innovation into their culture often employ a combination of leadership, stakeholder engagement, and capacity building initiatives to address these obstacles.

To conclude, the above literature indicates that undertaking innovation and change management in higher education is a multi-stage process of evaluating your strategy, resources, leadership and stakeholder engagement to help ensure the innovation is sustained. In addition, the literature seen here provides a frame of reference for understanding and contextualizing similar processes undertaken by Ghanaian Colleges of Educating.

## 3. METHODOLOGY

### 3.1. Research design

This study is a theoretical review which emphasizes the careful selection, review, and synthesis of theories and academic literature on innovation and change management in higher education institutions. In contrast to empirical research, which collects and analyzes original data from the field, a theoretical review investigates existing concepts, models, and frameworks across the literature and looks for patterns, connections, and gaps (Snyder, 2019). The theoretical review was chosen as the design because it aims to conceptualize how innovation and change management are interrelated within the context of Ghana's Colleges of Education, rather than to test hypothesized relationships with field data.

The theoretical review approach provides a formal way to incorporate perspectives from management, education, and organizational studies, thereby enriching the understanding of innovation and change in teacher education institutions. The study synthesizes existing theories of innovation and change management in higher education and illustrates how these global theories can be contextualized to Ghana's higher education ecosystem. The specific theories, Rogers' Diffusion of Innovation, Lewin's Three-Step Model, Kotter's Eight-Step Model, Institutional Theory, and the Resource-Based View were chosen because they represent both classical and contemporary approaches to innovation and organizational change. Together they capture external diffusion processes, internal change mechanisms, institutional influences, and resource-based perspectives relevant to higher education reform.

This design assures rigor in the selection of literature by reviewing peer-reviewed journals, policy documents, and institutional reports, and by ensuring that it included recent research published in the last five years. In doing so, the method provides the analytical base required to assess the relevance of existing frameworks and to offer insights for Ghanaian Colleges of Education.

### 3.2. Sources of Data

The research relies solely on secondary data sources, including peer-reviewed journal articles, scholarly books, policy documents, and institutional reports related to innovation and change management in higher education. To ensure current relevance, works published in the last five years were prioritized (Paré & Kitsiou, 2022).

Databases consulted included Scopus, Web of Science, ERIC, JSTOR, and Google Scholar, using Boolean search strings combining keywords such as "innovation in higher education," "change management in education," "teacher training institutions," "universities," and "Colleges of Education in Ghana."

Besides international sources, Ghana-specific documents such as T-TEL reports, National Teaching Council (NTC) reports, and Ministry of Education (MoE) and Ghana Tertiary Education Commission (GTEC) policies were included to provide contextual depth.

### 3.3. Inclusion and exclusion criteria

To maintain quality and relevance, the study established specific inclusion and exclusion criteria. The review included peer-reviewed publications produced between 2020 and 2025 that addressed innovation processes, change management strategies, or organizational transformation in higher education. Sources covered journal articles, policy documents, institutional reports, and book chapters. By focusing on this recent body of scholarship, the study captured ongoing debates and contemporary perspectives in the field.

In contrast, papers that focused solely on non-educational sectors were excluded unless their theories could be robustly applied to education. Grey literature such as blogs, opinion pieces, and non-peer-reviewed works was also excluded in order to maintain academic rigor and credibility.

An exception was made for foundational works such as Rogers' Diffusion of Innovations (2003), Lewin's (1947) Three-Step Model of Change, and Kotter's (1996) Eight-Step Model for Leading Change. These classical models were retained as conceptual anchors due to their ongoing relevance in framing current debates on innovation and change in higher education. Through this balance between contemporary evidence and foundational theoretical grounding, the review ensured both academic integrity and contextual relevance.

### 3.4. Data analysis

The analysis was thematically undertaken. Themes were derived deductively from the selected theories, where each theory served as a coding frame. From this, literature was clustered around diffusion and adoption of innovations, stages of change, leadership roles, institutional pressures, and resource-based capacities.

Theories guiding the coding included Rogers' Diffusion of Innovation (2003), Lewin's Three-Step Model (Burnes, 2020), Kotter's Eight-Step Model (Kotter, 2021), Institutional Theory (Scott, 2020), and the Resource-Based View (Barney, 2020). The meaning-making process involved relating these theories to Ghanaian Colleges of Education, particularly where institutional reform and curriculum change dominate education policy conversations (T-TEL, 2021; MoE, 2022).

A systematic reading strategy was adopted: articles were first screened for theoretical relevance, then grouped into thematic clusters aligned with the five theories. Only works demonstrating methodological rigor and theoretical clarity were retained.

To enhance methodological rigor, a conceptual framework was developed to illustrate how the five theories collectively

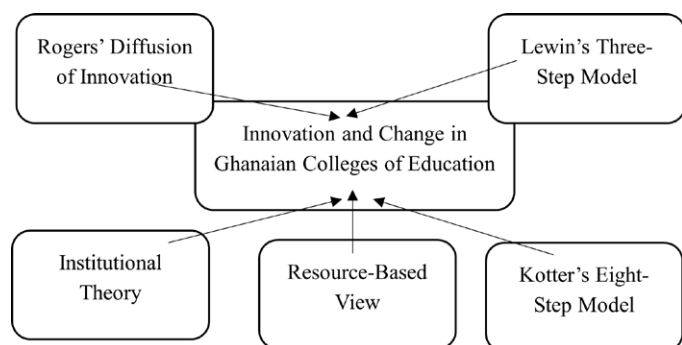provide a synthesized lens for analyzing innovation and change in Ghanaian Colleges of Education (Figure 1).



**Figure 1.** Conceptual framework

Figure 1: Conceptual framework showing the relationship between Rogers' Diffusion of Innovation, Lewin's Three-Step Model, Kotter's Eight-Step Model, Institutional Theory, and the Resource-Based View in explaining innovation and change in Ghanaian Colleges of Education.

**3.5. Ethical considerations**
As the study relied entirely on secondary data, no human participants were involved. Academic integrity was maintained by adhering to APA 7th edition referencing guidelines.
Limitations of secondary data use were acknowledged, including publication bias and the challenge of transferability, as theories and findings from other higher education systems may not directly apply to Ghana. By engaging both global and Ghana-specific literature, the study sought to mitigate these limitations and ensure credibility.

**4. RESULTS AND DISCUSSION**
**4.1. Lessons learned and implications for policy and practice**
The comparative analysis of international and Ghanaian experiences in innovations and change management offers several important implications for Colleges of Education in Ghana. The successful management of reforms requires sufficient attention to balancing external forces such as changes in government policy and accreditation standards with internal capacity such as leadership skill confidence, academic staff competence and expertise, and organizational culture (T-TEL, 2022; MoE, 2021). Engagement and collaboration with stakeholders and participatory development in decision making are necessary to engage with resistance to change and enhance innovative collaborative communities and a culture of innovation (Asare & Osei, 2022; Greenhalgh et al., 2020). Further, efficient deployment of human, financial and technology resources is critical to institutionalizing change in tertiary education institutions and demonstrates the importance of the Resource-Based View when examining innovation capacity within Colleges of Education (Barney, 2020).
In terms of policy and practice, the lessons presented above suggest that Colleges of Education should focus their efforts on building targeted capacity development programs, specifically focused on digital literacy and contemporary pedagogical

approaches, whilst having the appropriate infrastructure and resources to enable innovation. Leadership development should encompass strategic planning, effective communication, and participatory governance to build institutional resilience. More direct and deliberate policymaking for Colleges of Education would provide contextual flexibility and strength to institutions to respond to reforms based on local realities, rather than requiring uniformity through policy-based reform, ignoring the differences in established policies and practice based on resources and institutional readiness (MoE, 2023; T-TEL, 2022). These perspectives support both the progress and the issues occurring in Ghanaian Colleges of Education, giving further cause to explore how institutions can better respond to innovation and efficient change management processes regarding improving teacher education.

**4.2. Implications of theoretical perspectives for colleges of education in Ghana**
**4.2.1. Strategic implications for leadership**
The theoretical models reviewed by Rogers' Diffusion of Innovation, Lewin's Change Management Model, Kotter's Eight-Step Model, Institutional Theory, and Resource Based View provide guiding principles that GCE leadership can use. The follow-up research recommends that leaders need to be active advocates for innovation: leaders will need to create a vision and convey its importance to staff, and demonstrate a commitment to its implementation and on-going support as noted in Lewin's and Kotter's Models (Burnes, 2021; Kotter, 2021). This includes preparation of staff for when the innovation is introduced, addressing staff resistance, and ensuring that the institution's policies are conducive to adopting new teaching, administrative and technology practices.
Leaders will also need to strategically leverage their organization to the fullest extent possible when defining the implementation of the Resource-Based View, including using the expertise of faculty, technologies, and cultures to establish sustainability of reform and continue to build institutional capacity (Barney, 2020; T-TEL, 2022). Additionally, Institutional Theory reminds leaders to be mindful of the pressures associated with the external environment and the need to conjoin innovation with government policies, accreditation guidelines, and donors/ partners expectations, while maintaining a level of autonomy that is in the organization's best interest (Scott, 2021; MoE, 2023). Insights from Rogers' Diffusion of Innovation indicate that leaders need to identify and support early adopters in the institution, using peer influence and role modeling to drive adoption of current and future innovations (Greenhalgh et al., 2020). An example of this in action can be found at Peki College of Education, where leaders implemented the B.Ed. reforms by communicating the vision for change, empowering faculty with training, and ensuring that resources were available for digital learning platforms. Early-adopter lecturers were supported to mentor others which helped to expand the spread and acceptance of new ways of pedagogies and laid the foundations for embedding sustainable reforms (T-TEL, 2022).
By applying the theoretical insights to their leadership strategies, administrators in Ghanaian Colleges of Education will improve their ability to manage change effectively, build

institutional capacity, and guarantee further educational reforms are implemented sustainably.

### 4.2.2. Policy implications

The theoretical lenses presented in this work have implications for the planning, development, and delivery of policy action in Ghanaian Colleges of Education. The Institutional Theory reveals how policy frameworks are likely to influence how the institution operates and the behaviour of actors in the institution. Nevertheless, the implication for policy is that there must be a coherent and consistent policy direction to stimulate and guide innovation and change, while also considering the realities of local contexts (Scott, 2021; MoE, 2023). Similarly, policies must find a healthy balance between what must be done externally (through the ministry of education accreditation standards, or national curriculum reforms), and the allowance for the colleges to take ownership and build reforms around their own institutional circumstances.

The Resource-Based View maintains the same purpose for policy; it demonstrates the need to identify the strategic development of resources within and for an institution including the development of faculty, technology, and the organizational culture (Barney, 2020; T-TEL, 2022). Policy actions that ensure resources and support are available for Colleges of Education (and the education system) to enact reforms are critical starting points in developing coherent policies, especially educational systems relating to ICT, induction, and research.

Rogers' Diffusion of Innovation, Lewin's change model, and Kotter's change model further highlight the need for policies that facilitate structured change management processes, which should incorporate opportunities for stakeholder engagement, effective communication, and ways to monitor and evaluate (Burnes, 2021; Greenhalgh et al., 2020; Kotter, 2021). In addition, the policies need to support shared decision-making and recognize and reward early adopters and innovators in order to create a continual improvement ethos with colleges. As a whole, these implications suggest that policy frameworks particularly at national and institutional level need to be designed as directive and enabling processes that support accountability, but allow for local contextualization. In effect, this allows for innovation in teacher education reform to be implemented effectively, sustainably, and in a culturally relevant manner, helping to maintain its relevancy to national and global education outcomes.

### 4.2.3. Practical implications for institutional management

The theoretical insights discussed in this review generate multiple policy implications for the management of Ghanaian Colleges of Education fully informed of the following: Leaders and Property Managers should focus on harnessing internal capabilities to be creative and innovative: namely, through investing in staff professional development [learning opportunities]; incorporating ICT advancements; creating an environment that cultivates experimentation and collaborative problem-solving (Barney, 2020; T-TEL, 2022). Critical practical action derived from Lewin's Three-Step Model and Kotter's Eight-Step Model on Leading Change suggests that institutional Management needs to plan, communicate and monitor change

systematically; as part of this, they need to prepare staff for change activities, locate and identify early (or potential) innovators to be champions of best practice, and provide systematic opportunities to observe change through systematic actions to evaluate the effectiveness of their innovative teaching and learning (Burnes, 2021; Kotter, 2021), with the ultimate effect of reducing resistance to new teaching, learning, and administrative practices.

Institutional Theory emphasizes the significance of ensuring that the management practices take into account external regulatory requirements and policies such as accreditation standards, Ministry of Education (MoE) sanctions and discipline from professional body National Teaching Council (Scott, 2021; MoE, 2023), requiring management to balance compliance with strategic resources use to achieve institutional efficiency and sustainability.

In conclusion, Rogers' Diffusion of Innovation provides the lens to appreciate management integrating a knowledge sharing and peer learning approach amongst staff that maximizes opportunities for faculty to observe and implement practices being adopted by colleagues and partner institutions (Greenhalgh et al., 2020). Together, these implications point to the integrated managerial activities such as leadership, resource use, manage change processes, and external alignment and constraints that management must consider to achieve sustainable innovation in Ghanaian Colleges of Education.

### 4.3. Future directions

Future research should consider longitudinal studies focused on the implementation and perceived impact of innovations, as this can yield important details on processes, barriers, and facilitators for innovative change. Comparative studies located in multiple colleges may also help identify differences between institutions and provide evidence-informed insights for progressing innovation and change in higher education in Ghana.

### 5. CONCLUSION

This theoretical review has identified important findings from a variety of frameworks - Rogers' Diffusion of Innovation, Lewin's Change Management Model, Kotter's Eight-Step Model, Institutional Theory and Resource-Based View - all of which inform the implications for innovation and change management in Colleges of Education in Ghana. The discussion has demonstrated how exactly innovation connects to a process of diffusion, how organizations can apply a systematic approach to managing change, and how organizations can embrace their internal capacities for change and the imperatives of their external environments as pressures for change.

The review has bridged theory, policy, and practice, reinforcing a need for leadership that supports innovation, institutions to always be strategic in approaching their resources, and policies that are directive but allow for localization. Stakeholder engagement, professional development, and infrastructure of support were also highlighted as the most effective ways for sustaining reform and for realizing innovative practice.

In conclusion, the findings indicate that Ghanaian Colleges of Education urgently require innovation-oriented reforms.

Leaders, managers and policy-makers need to adopt theoretical perspectives to inform their strategic planning, implement formal stages of change, and create conducive conditions for improvement. This would require ongoing efforts towards institutional effectiveness and the quality of teacher education, with the objective of Ghanian colleges aligning themselves with national development goals and international higher education standards.

In addition, the review provides empirical research indicators by embedding theoretical orientations to Ghanaian Colleges of Education and provides future directions for scholars to study and improve innovation and change management.

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